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EXAMINER

AMINI, JAVID A

ART UNIT	PAPER NUMBER
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2628

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/834,255

Filing Date: April 12, 2001

Appellant(s): GROSSMAN, PETER ALEXANDER

Timothy B. Kang
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed May 22 2006 appealing from the Office action mailed 11/25/2005.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The amendment after final rejection filed on 1/25/2006 has not been entered.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5602870	Hailey et al.	2-1997
4899292	Montagna	2-1990

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-8, 10 and 16-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Hailey et al. hereinafter Hailey, and further in view of Montagna et al. hereinafter, Montagna.

1. Claims 1, 6 and 16-17.

A system for manipulating an image on a screen, said system comprising:

Hailey in fig. 2 illustrates a system for manipulating an image on a screen. Hailey does not teaches the following claim limitations for a touch-sensitive screen and a stylus for indicating an image on screen, however, Montagna in figs. 9-10 illustrates if the user touches screen over a portion of graphic image that is zoomed in or enlarged by a factor (Applicant claims continuously enlarge and reduce the image, but Applicant does not claim by what factor.

Examiner's interpretation: the factors can be implemented as 1:2, 1:4, or 1:5 and vice versa. The process of e.g. 1:5 factor can be corresponded to continuously enlarge) and centered at the touch point in window. Applicant discloses in the specification page 4, lines 20-22 that instead of using a touch-screen and stylus, a digitizing tablet and pen or puck or other suitable pointing device could be used. Applicant claims means for generating said image on said screen, which is

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obvious because Hailey in fig. 2 illustrates it. The next step of this claim claims means for generating including a dynamic zoom means for carrying out a zoom action on said image on said screen, and Hailey in col. 2, lines 39-42 teaches a dynamic zoom sequence, which is necessary to design a filter set so that the cut-off frequency of some or all of the filters within the set is spaced logarithmically in order to minimize perceptible changes in sharpness which may result from the use of a discrete filter set. Now it would have been obvious to a person skill in the art to incorporate the digital image processing of Hailey with Montagna's systems, which enlarged and centered about a desired point in the graphic image using wand or stylus, and this modification of Montagna into Hailey would provide a user to perform a dynamic zooming on an image, and Hailey provides an example: for a 2:1 zoom ratio is given in fig. 3. Line A shows original input pixels from the portion a of the full input image produced according to the system timing illustrated in Line C. Line B illustrates the output pixels needed for a 2:1 zoom from the active portion a to produce a full-sized output image (FIG. 2). Thus, Lines A and B represent the spatial relationship between the original input and "zoomed-in" pixels respectively.

Zooming is obtained by writing into the input store 14 at the synchronous rate represented by the Line C timing and then controlling the readout of the input store so as to repeat samples in its output. In the example shown in FIG. 3, this is done by advancing the read address for every other input clock, as shown by Line F, thereby repeating pixels as shown in Line D. The repeated pixels are then subjected to a linear interpolation in the spatial interpolation unit 16. The interpolated pixels are shown in Line E relative to the synchronous timing of Line C. In accordance with a simple linear interpolation, output (repeat) pixel B will be the average of input pixels N and N+1, (repeat) pixel D the average of input pixels N+1 and N+2, and so on. Claims

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16 and 17 claims the center of zoom action follows the movement of stylus. Hailey in col. 3, lines 10-16 teaches this broad limitation as follows: It is known to use a telecine (Telecine is the process of transferring motion picture film to a video format) film scanner for scanning image pixel areas on motion picture film to produce image pixel data corresponding to those image pixel areas. Size alteration effected by vertical and/or horizontal enlargement or expansion will be called zooming and orientation alteration effected by side-to-side or up and down movement will be called panning.

2. Claims 2-3 and 7-8.

It is obvious that the two references cover the limitations of enlargement and reduction of an image, because Hailey in fig. 3 illustrates two different zooming of the data image.

3. Claims 5 and 10.

Applicant claims that the image on the screen is the graphical form of a mathematical object. It is very obvious because a person skill in the art would analyze (e.g. by using a rectangular array of numeric or algebraic quantities subject to mathematical operations) and having the coordinates as to locate a pixel, and other attributes involve for that particular pixel. A plurality of pixels creates a graphical object or a mathematical object.

(10) Response to Argument

The broadest claim is claim 1.

Appellant on page 10, lines 7-11, of the appeal brief argues that the Examiner fails to indicate which, of the references discloses a center of zoom action follows the movement of a stylus and that the zoom action is performed repeatedly as the stylus is moved across a screen, until the stylus is removed from contact with screen.

Examiner's reply: referring to col. 1, lines 7-10 of the Hailey et al. hereinafter refers as Hailey, reference teaches that the his invention relates to digital signal processing and is more particularly concerned with the implementation of continuous zoom to a digital image. Now see col. 2, lines 39-40 repeats the teaching of a dynamic zoom sequence. [Examiner's comments: Just from these implementations of continuous zoom and dynamic zoom sequence, any ordinary person skill in the art realizes the reference Hailey teaches the zoom action. On the other hand it's well known that an object to be zoomed uses the horizontal and vertical zoom factors to recalculate the horizontal and vertical coordinates of the screen boundaries. It means the horizontal and vertical (both) requires changing.] Hailey teaches at col. 4 lines 48-50 the zoom ratio, either horizontally or vertically or both. For clarity purpose see fig. 2 the input and out (zoomed) images. It's obvious when the horizontal and vertical (both) coordinates are changing sequentially, the center of the zoom action would follow the participated zoom section. The Hailey's invention is involved digital signal processing, and covering the manipulation of the zoom action at processor level, of course the zoom action may be seen on a screen using inputs e.g. a mouse, a keyboard, a stylus, or touch sensitive screen. That is the reason the Appellant

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argues the reference does not disclose a stylus, and the Examiner incorporates the second reference Montagna et al. hereinafter refers as Montagna that teaches clearly in fig. 7 step 151 “zoom and center”. After microprocessor 60 in fig. 4 reads interface 76 which is coupled to the output of touch screen 70, microprocessor 60 decodes the output of touch screen 70 based on this reading and the software stored in PROM 50. Thus, microprocessor 60 determines the X-Y coordinate of the touch point 145 in fig. 9 (step 350, fig. 11). Next, microprocessor 60 maps the X-Y coordinates of the touch point onto the addresses of the currently displayed image to determine the pixel of the image corresponding to the point of touch (step 352, fig. 11). Next, microprocessor 60 determines whether this image pixel point can be perfectly centered within window 61 while still filling the entire window with the image in 2:1 enlarged or zoomed-in form. This will be the case if the touch point is relatively near the center of the image as is the case with touch point 145, but will not be the case if the touch point is relatively far from the center of the image and near a border of window 61. The center point of the image determined in step 352 becomes the exact center point of the zoomed-in image (step 354) and the address in DRAM 99 of the upper left corner of the new 2:1 zoomed-in image is transmitted to processor 102 (step 356). The enlarged image is centered at the closest point to the touch point. Montagna in fig. 16 illustrates a stylus.

Appellant on pages 11-12 repeated similar argument.

Examiner's reply: Examiner refers to replies above.

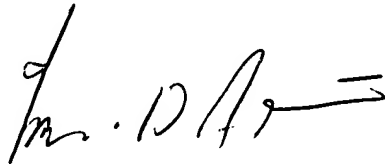
(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Javid Amini



Conferees:

Kee Tung



KEE M. TUNG
SUPERVISORY PATENT EXAMINER

Conferees:

Ulka Chauhan



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